

Before the  
**Federal Communications Commission**  
Washington DC 20554

In the Matter of	)	
	)	
Modification of Parts 2 and 15 of the	)	ET Docket No. 03-201
Commission's Rules for Unlicensed	)	
Devices and Equipment Approval	)	

**COMMENTS OF SYMBOL TECHNOLOGIES, INC.**

January 23, 2004

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Pursuant to Section 1.415 of the Commission's Rules, Symbol Technologies, Inc. files these comments in the above-captioned proceeding.<sup>1</sup> Symbol designs and manufacturers over \$1.4 billion in wireless (unlicensed, Wi-Fi) products.

**SYMBOL SUPPORTS RULE CHANGES THAT ADD TO MANUFACTURERS' FLEXIBILITY WITHOUT INCREASING INTERFERENCE POTENTIAL.**

**1. The Part 15 rule regime has been extremely successful.**

Unlicensed operation under Part 15 has matured into a major component of the Nation's telecommunications infrastructure. Not only are unlicensed devices an important industry in their own right, but they contribute to the efficiency, success, and global competitiveness of many other industries, including public safety and law enforcement, manufacturing, retail, transportation, health care, education, energy, communications, finance -- indeed, every sector of the economy.

Consumers are most familiar with the Wi-Fi devices that power millions of unlicensed home computer networks and provide ubiquitous Internet access in coffee shops, airports, hotels, and the like, and also with less sophisticated products like cordless phones, nursery monitors, wireless headphones and speakers, automotive entry systems, and countless others. But Part 15

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<sup>1</sup> *Modification of Parts 2 and 15 of the Commission's Rules for Unlicensed Devices and Equipment Approval*, 18 FCC Rcd 18910 (2003) ("Notice").

devices fill vital commercial, industrial, medical, and financial needs as well. Common commercial applications include retail cash registers and inventory control, airport baggage handling, package delivery, car rental services, automated meter reading and alarm services, and warehouse picking operations. Hospitals and other health care facilities use unlicensed devices for patient telemetry, inventory and billing, patient records, and bedside checks on medication.<sup>2</sup> Most of the transactions on the New York Stock Exchange are mediated by unlicensed wireless terminals. Internet service providers use wireless communications links for broadband speeds at distance up to 40 km.

In short, unlicensed operations provide reliable, inexpensive, high-capacity radios that users can install and move as needed, without the costs and delays of licensing. For the past few years they have been one of the few bright spots in an otherwise slow technology sector.

**2. Previous rule changes have improved Part 15 performance without increasing interference.**

Ever since spread spectrum modulation brought new levels of capability to Part 15 operation almost twenty years ago,<sup>3</sup> the rules have seen almost continual revision. In 1990 the Commission increased the allowable antenna gain,<sup>4</sup> and in 1995 added flexibility in measuring

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<sup>2</sup> The FDA has proposed to require that all medications be uniformly labeled with bar codes to improve patient safety. Warren Strugatch, *In Health Care, the Future Will Be Bar-Coded*, N.Y. Times, March 23, 2003, Sec. 14LI, p. 6. Adoption this rule will greatly increase the medical use of unlicensed wireless devices.

<sup>3</sup> *Spread Spectrum and Other Wideband Emissions*, 101 F.C.C.2d 419 (1985).

<sup>4</sup> *Spread Spectrum Systems*, 5 FCC Rcd 4123 (1990).

processing gain.<sup>5</sup> A 1997 order further increased antenna gain.<sup>6</sup> A key development was the 1998 off-the-record ruling that authorized CCK modulation, which in turn which launched the Wi-Fi revolution. By 2002 the Commission had dropped all modulation requirements in the "spread spectrum bands,"<sup>7</sup> which made possible the five-times-faster 802.11g standard -- the top selling wireless LAN platform within six months of introduction. On a parallel track, the Commission improved time-to-market by allowing manufacturers to certify products through Telecommunications Certification Bodies. Most recently, the Commission simplified and updated the Part 15 rules in many respects.<sup>8</sup>

This ongoing easing of regulation has resulted in greatly improved performance of Part 15 devices, dramatically lower costs, and ubiquitous adoption -- yet has caused no increase in the risk of interference to other users.

### **3. The Commission should adopt the proposals in the Notice.**

Symbol supports a continuation of the deregulatory changes that enable improvements of wireless LANs in the unlicensed bands. In particular, we support authorizing the use of advanced antennas for improving the capacity and efficiency of networks, and for conserving spectrum by increasing the potential for frequency re-use. Symbol also supports initiatives that improve the efficiency of the development and testing of new wireless products. Specifically, we

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<sup>5</sup> *Guidance on Measurements for Direct Sequence Spread Spectrum Systems*, Public Notice (released July 12, 1995).

<sup>6</sup> *Spread Spectrum Transmitters*, 12 FCC Rcd 7488 (1997).

<sup>7</sup> *Spread Spectrum Devices*, 17 FCC Rcd 10755 at paras. 7-16 (2002).

<sup>8</sup> *Review of Part 15 and Other Parts of the Commission's Rules*, 18 FCC Rcd 14741 (2003).

support the use of modular transmitters and the increase in the import limits for testing and demonstration. Both of these proposals realistically reflect changes in the industry and the globalization of product development.

### **CONCLUSION**

Twenty years' experience has shown that careful deregulation under the Part 15 rules improves performance and reduces cost without any harmful effects. The proposals in the Notice will continue this trend, and warrant prompt adoption.

Respectfully submitted,

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